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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,316	07/14/2003	Steffen Lang	PO-7724/LcA 36,265	7287
34947	7590	05/13/2005	EXAMINER	
LANXESS CORPORATION 111 RIDC PARK WEST DRIVE PITTSBURGH, PA 15275-1112			STAICOVICI, STEFAN	
			ART UNIT	PAPER NUMBER
			1732	
DATE MAILED: 05/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/619,316

Applicant(s)

LANG ET AL.

Examiner

Stefan Staicovici

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/10/03;1/30/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-9 in the reply filed on April 25, 2005 is acknowledged.

### ***Specification***

2. The abstract of the disclosure is objected to because the Abstract should avoid using phrases which can be implied, such as, "disclosed" (see page 14, line 4). Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 and 3 recite the limitation "the fibers bundle" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zerafati-Jahromi *et al.* (US Patent No. 6,149,846) in view of JP 2001-179738.

Zerafati-Jahromi *et al.* ('846) teach the basic claimed process for making a fiber reinforced article including, providing a polymeric material (first component), melting said polymeric material, mixing glass fibers (second component) with said molten polymeric material to form a mixture, injection molding said mixture and solidifying said mixture to form said fiber reinforced article (see col. 11, line 9 through col. 12, line 7). Further, Zerafati-Jahromi *et al.* ('846) teach glass fibers having a length of 0.25 inches (about 6 mm) (col. 3, lines 37-38) and that no solidification occurs between mixing glass fibers with said polymeric material and injecting said mixture into a mold (see col. 4, lines 50-55).

Regarding claim 1, although Zerafati-Jahromi *et al.* ('846) teach an injection molded fiber reinforced article, Zerafati-Jahromi *et al.* ('846) do not teach that said fibers have a mean length of at least 400  $\mu\text{m}$ . However, Zerafati-Jahromi *et al.* ('846) teach a process that allows obtaining injection molded products having a longer fiber length. Further, a fiber-reinforced product having a fiber mean length of at least 400  $\mu\text{m}$  is well known to be obtained by an injection molded process as evidenced by JP 2001-179738 which teaches a glass fiber reinforced injection molded product wherein said fibers have a mean length of at least 600-700  $\mu\text{m}$  (see Abstract). Further, it is noted that the original length of the glass fibers are 3 mm or more. Therefore, it would have been obvious for one of ordinary skill in the art to obtain an injection

molded article having a fiber mean length of at least 400  $\mu\text{m}$  as taught by JP 2001-179738 using the process of Zerafati-Jahromi *et al.* ('846) because, Zerafati-Jahromi *et al.* ('846) teach a process that allows obtaining injection molded products having a longer fiber length, whereas JP 2001-179738 teach that a longer fiber length provides for increased strength and appearance, hence providing for an improved product.

In regard to claim 4 and 9, Zerafati-Jahromi *et al.* ('846) teach a polyamide resin and a polypropylene resin (see col. 4, lines 38-40).

7. Claims 2-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zerafati-Jahromi *et al.* (US Patent No. 6,149,846) in view of JP 2001-179738 and in further view of Sakai *et al.* (US Patent No. 6,428,728 B1).

Zerafati-Jahromi *et al.* ('846) in view of JP 2001-179738 teach the basic claimed process as described above.

Regarding claims 2-3, although Zerafati-Jahromi *et al.* ('846) in view of JP 2001-179738 teach fibers, Zerafati-Jahromi *et al.* ('846) in view of JP 2001-179738 do not teach a fiber bundle mean diameter of 6-17  $\mu\text{m}$ . Sakai *et al.* ('728) teach an injection molding process for making a fiber reinforced article using glass fiber bundles having a mean diameter of 1-20  $\mu\text{m}$  (see col. 6, lines 42-47). Therefore, it would have been obvious for one of ordinary skill in the art to have provided glass fiber bundles having a mean diameter of 1-20  $\mu\text{m}$  as taught by Sakai *et al.* ('728) in the injection molding process of Zerafati-Jahromi *et al.* ('846) in view of JP 2001-179738 because, Sakai *et al.* ('728) teach that such fibers provide for improved fluidity and mechanical properties, hence providing for an improved product and also because, the process of Zerafati-

Jahromi *et al.* ('846) in view of JP 2001-179738 requires the use of glass fibers in order to function as described.

In regard to claims 5-8, although Zerafati-Jahromi *et al.* ('846) in view of JP 2001-179738 teach nylon and polypropylene, Zerafati-Jahromi *et al.* ('846) in view of JP 2001-179738 do not specifically teach polyester, PA6, PA66, polybutylene terephthalate and polyethylene terephthalate. However, the use of polyester, PA6, PA66, polybutylene terephthalate or polyethylene terephthalate in injection molding as equivalent alternatives to nylon and polypropylene is well known as evidenced by Sakai *et al.* ('728) who specifically teach the use polyester, PA6, PA66, polybutylene terephthalate or polyethylene terephthalate in injection molding as equivalent alternatives to nylon and polypropylene (see col. 6, lines 2-12). Therefore, it would have been obvious for one of ordinary skill in the art to have provided polyester, PA6, PA66, polybutylene terephthalate or polyethylene terephthalate in the process of Zerafati-Jahromi *et al.* ('846) in view of JP 2001-179738 because, Sakai *et al.* ('728) specifically teach the use polyester, PA6, PA66, polybutylene terephthalate or polyethylene terephthalate in injection molding as equivalent alternatives to nylon and polypropylene (see col. 6, lines 2-12) and also because all references teach injection molding of fiber reinforced thermoplastic materials.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD

A handwritten signature in black ink, appearing to read 'Stefan Staicovici', with a date '5/9/05' written below it.

Primary Examiner

AU 1732

May 9, 2005